What is claimed is:

1. A magnetic disk storage system comprising:

a first motor which rotates a magnetic disk;

a first motor drive circuit which rotatably drives the first motor;

a magnetic head which effects read of information on a storage track on the magnetic disk;

a second motor which moves the magnetic head over the magnetic disk;

a second motor drive circuit which rotatably drives the second motor; and

a drive control circuit which controls currents caused to flow through coils of the first and second motors by the first motor drive circuit and the second motor drive circuit,

wherein, upon loading the magnetic head from a standby position to the surface of the magnetic disk, the drive control circuit makes a rotational speed of the first motor slower than a rotational speed at a normal operation.

2. The magnetic disk storage system according to claim 1, wherein the drive control circuit causes the first motor drive circuit to perform a stepup converter operation upon power shutoff to thereby perform power-conversion into a DC voltage higher than an amplitude

value of each of three-phase back electromotive voltages (B-EMF: Back-electromotive force) developed by rotation of the first motor, and operates the magnetic head at the DC high voltage to move the magnetic head to a predetermined standby position.

3. The magnetic disk storage system according to claim 2, further comprising a system control device which supplies a command to the drive control circuit,

wherein the drive control circuit controls a current flowing through each of coils of the first motor in accordance with a current command value sent from the system control device to thereby control the rotational speed of the first motor, and upon the power shutoff, operates the system control device by a high voltage taken out of the back electromotive voltages in accordance with the stepup converter operation of the first motor drive circuit.

4. The magnetic disk storage system according to claim 3, wherein the drive control circuit detects the phase of the back electromotive voltage developed in each of the coils of the first motor and applies a voltage amplitude larger than an amplitude of the back electromotive voltage to each of the coils of the first motor in synchronism with the back electromotive voltage to thereby rotatably drive the motor, and applies a

voltage amplitude smaller than the amplitude of the back electromotive voltage to each of the coils of the first motor in synchronism with the back electromotive voltage developed in each of the coils of the first motor, to thereby allow the first motor to execute the stepup converter operation.

5. The magnetic disk storage system according to claim 3, wherein the drive control circuit includes an error amplifier which amplifies a potential difference between the voltage generated by the stepup converter operation of the first motor and a predetermined control voltage, and the drive control circuit applies a voltage amplitude corresponding to an output of the error amplifier to each of the coils of the first motor upon the power shutoff, to thereby allow the first motor to perform the stepup converter operation.

6. The magnetic disk storage system according to claim 5, wherein the current command value is a digital value, a circuit is provided which reproduces currents flowing through the respective phase coils of the first motor to values respectively proportional to phase coil currents of three phases from a voltage value detected by a resistor, and the drive control circuit applies a voltage corresponding to an output of a comparison between the current command value and each of the current

reproduced values to each of the coil of the first motor upon the normal operation and applies a voltage corresponding to the output of the error amplifier to each of the coils of the first motor upon the power shutoff.

7. The magnetic disk storage system according to claim 1, wherein the first motor drive circuit includes transistors that cause currents to flow through the coils of the first motor, and the drive control circuit carries out on/off-control of the transistors according to a pulse width control system.

8. The magnetic disk storage system according to claim 7, further comprising a boost circuit which steps up a power supply voltage or the voltage generated by the stepup converter operation of the first motor drive circuit,

wherein the first motor drive circuit includes circuits which generate signals for turning on and off the transistors by the boost voltage generated by the boost circuit.

9. The magnetic disk storage system according to claim 1, further comprising back electromotive voltage phase detecting means which detects the back electromotive voltage developed in each of the coils of

the first motor,

wherein the system control device generates a voltage command value having a voltage amplitude corresponding to the current instructions in synchronism with the back electromotive voltage detected by the back electromotive voltage detecting means and supplies the voltage command value to the drive control circuit.

10. The magnetic disk storage system according to claim 1, wherein the magnetic head is comprised such that a gap with respect to the surface of the magnetic disk becomes small as the rotational speed of the first motor increases.

11. A magnetic disk storage system comprising:

a first motor which rotates a magnetic disk;

a first motor drive circuit which rotatably drives the first motor;

a magnetic head which effects read of information on a storage track on the magnetic disk;

a second motor which moves the magnetic head over the magnetic disk;

a second motor drive circuit which rotatably drives the second motor; and

a drive control circuit which controls currents caused to flow through coils of the first and second motors by the first motor drive circuit and the second

motor drive circuit,

wherein, upon loading the magnetic head from a standby position to the surface of the magnetic disk, the drive control circuit makes a rotational speed of the first motor slower than a rotational speed at the time that the magnetic head moves over the surface of the magnetic disk.

12. The magnetic disk storage system according to claim 11, wherein the drive control circuit causes the first motor drive circuit to perform a stepup converter operation upon power shutoff to generate a DC voltage higher than an amplitude value of each of three-phase back electromotive voltages (B-EMF: Back-electromotive force) developed by rotation of the first motor, and operates the magnetic head at the DC high voltage to move the magnetic head to a predetermined standby position.